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LETTER REGARDING U S EPA REGION III COMMENTS ON U S NAVY RESPONSES TO
COMMENTS ON DRAFT TIER II SAMPLING AND ANALYSIS PLAN FOR AREA OF
CONCERN 8 (AOC 8) AREA SOUTH OF SITE 7 REMEDIAL INVESTIGATION FISC
WILLIAMSBURG VA
2/6/2013
U S EPA REGION III



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029**

February 6, 2013

Mr. Scott Park
NAVFAC MIDLANT, Building N-26, Room 3208
Attention: Code OPHE3, Mr. Scott Park
9742 Maryland Avenue
Norfolk, VA 23511-3095

Subject: Response to Comments, Remedial Investigation, Sampling and Analysis Plan, AOC 8 –
Area South of Site 7, Naval Weapons Station Yorktown Cheatham Annex,
Williamsburg, Virginia, January 3, 2013

Mr. Park:

Thank you for the opportunity to review the subject document. Although many responses were acceptable, others require further discussion as described below. Any responses not listed below are acceptable. We would be happy to discuss any comments on a phone conference.

1. Comment 5 stated that because the data collected from the proposed soil and groundwater samples will be used in the remedial investigation and the variability that can occur between samples of these media, analyses of the proposed samples need to include the original list of contaminants used in the former site investigation process. The RTC states that spatial coverage is adequate to determine contaminants of potential concern (COPCs), thus no additional analytes are needed. While the area of AOC 8 is not large (approximately 210 feet by 350 feet), there were only 5 soil sample locations and 4 groundwater/soil sample locations sampled. However, approximately 50% of the surface area of AOC 8 did not have soil or groundwater/soil sample locations. Therefore, the limited number of samples and the limited area sampled along with the variability of concentrations that can be found in soil samples suggests that identifying COPCs at the site investigation stage at AOC 8 is premature.
2. Comment 6 stated that the location of the debris outcrops should be identified to ensure the previous and proposed sampling locations include this area as a potential source of contamination. The RTC states that the debris outcrop is inside the berm of AOC 8. Due to the fact that this AOC is located less than 70 feet from the cliff that is adjacent to the York River opens up the concern of whether contamination from this site has entered the York River or habitats adjacent to the York River via groundwater migration or surface

water flow (before the berm was installed). Two soil samples should be collected on the east side of the site between the berm and the edge of the cliff.

3. Also pertaining to the RTC for Comment 6, the RTC states that the 2008 site investigation soil sample locations have adequately characterized this area as a potential source of contamination. This debris area is identified in Figure 1 (attached to the RTC). According to this attached figure, there are no historical or proposed soil samples in the vicinity of this debris area.
4. Comment 7 stated that food chain modeling should be performed for receptors with small home ranges (e.g., short-tailed shrew [*Blarina brevicauda*] shrew and American robin [*Turdus migratorius*]). The RTC states that while the total site area may be 1.5 acres, only about 0.25 acres of the site has surface debris and 0.7 acres has buried debris. The RTC states that these areas are too small for significant exposure to occur for upper-trophic level receptors. BTAG still does not support this position. Even if area use is not 100% because of the small size of the site, food chain modeling should be performed on receptors with small home ranges to assess this exposure pathway.
5. Comment 9 stated that the initial and final COPCs for plants and invertebrates need to be based on maximum concentrations, not mean values. The RTC states that final COPCs (Step 3A) will consider mean and 95% UCL soil concentrations, per Navy ERA guidance. While comparison to means and 95% UCL soil concentrations can be used to establish a risk range, chemicals should not be deleted as COPCs based on a comparison to means alone. This issue should be clarified.
6. Comment 13 stated that it is unlikely that buried debris exists below the groundwater table, which is estimated to be less than 30 feet bgs. The comment stated that information should be provided to support this statement, otherwise it should be removed. The RTC states that while it is not irrefutable, the depth to groundwater data can infer the likely maximum depth of debris at the site. Based on data from other Superfund Sites pertaining to buried debris and the depth to water, the stated inference (e.g., depth to groundwater is the likely maximum depth of debris) may not be correct, particularly since the groundwater table can fluctuate seasonally and annually.
7. Comment 16 stated that additional information needed to be provided to support the use of the 50 microgram per kilogram ($\mu\text{g/kg}$) as the threshold for routine basewide pesticide application. The RTC states that this threshold was based on a discussion with BTAG, and that BTAG stated that the background from routine spraying tends to be less than 50 $\mu\text{g/kg}$. While background from routine spraying would be less than 50 $\mu\text{g/kg}$, it is likely much lower than this level. BTAG recommends that a site-specific threshold be developed with data collected from sites on the base where pesticides were not handled or disposed and thus only received routine aerial pesticide application.

If you have any questions, please contact me at 215-814-3394.

Sincerely,

A handwritten signature in blue ink, appearing to read "Susanne Haug", with a long, sweeping horizontal stroke extending to the right.

Susanne Haug, P.E.
NPL/BRAC Federal Facilities Branch

cc: Wade Smith, VDEQ